Bootlin training course evaluation
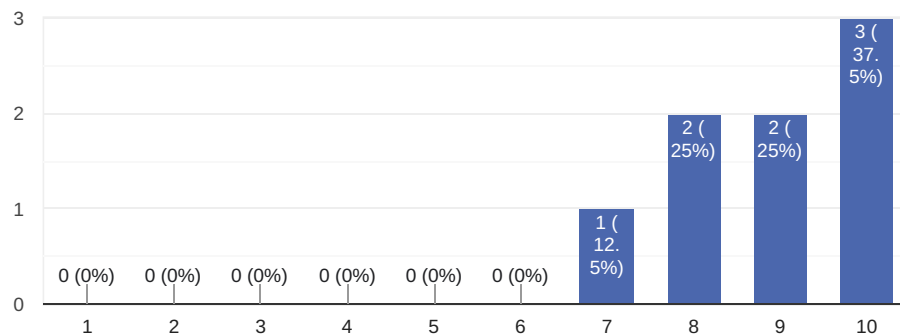
8 responses

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Overall rating of the course

Copy

8 responses

Comments and suggestions

2 responses

The course is ok. Maybe more practical lessons (labs) will be helpful.

Really enjoyed this course and found it extremely relevant to the work I've been doing over the past year. I think there are a few things that could be improved, mostly in the materials and logistics, but I thought Maxime did an incredible job and was very knowledgeable.

I also feel like the audience/focus of this course was definitely more on the embedded side, which makes sense, but Maxime did a great job of including some tidbits of use cases and practices on general purpose hardware. Selfishly I would have enjoyed even more info on building kernels and writing realtime applications for flavors of linux like Debian/Ubuntu, but acknowledge that I'm probably in the minority with that wish.

Looking forward to learning more and contributing in this space!

How useful were the lectures?

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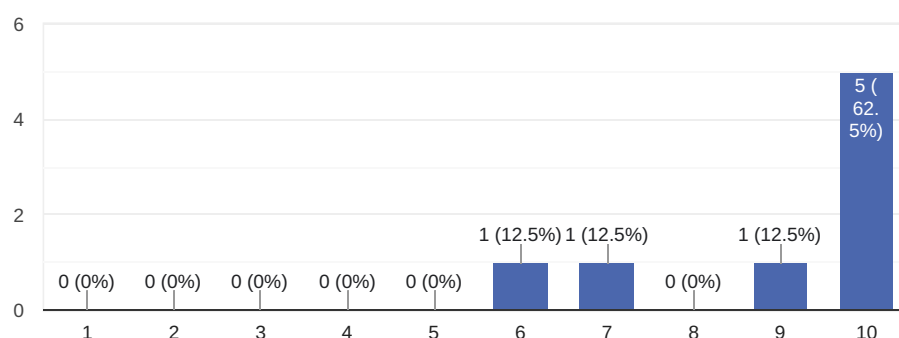8 responses
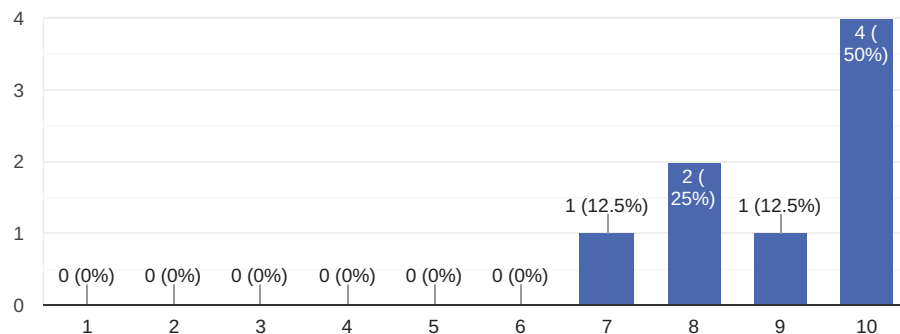
Comments and suggestions

2 responses

The lectures were dynamic and clear.

The content of the lectures was great and really comprehensive. Even after years of compiling and debugging kernels in this space, I feel like I learned a lot and picked up some tricks that I have not been taking advantage of. The pace was a little bit fast since there was so much information and I think it would have been nice to break up the lectures with practical examples a bit more. For example, maybe before day 2, we could have the practical lab 2 kernel already compiled and that would let the trainer interleave some real examples of benchmarking/monitoring while discussing these topics in the slides.

How useful were the practical demos?   📋 Copy

8 responses

Comments and suggestions

3 responses

Maybe increase the practical part and let the student solve the problem and then we can share the results, since now there is not much time left to attend and do it on our own at the same time, I have always accumulated a little bit of delay

The practical demos were ok, but sometimes during the demos, when the PC of the trainer used a great amount of CPU for the demo, the feed went black. Maybe a separated machine for demo and sharing screens will be better.

I think the practical demos really made the course. Also, I think a little more info on using buildroot and setting up the ST discovery kits (or time spent doing this at the beginning of the course) would be nice and maybe encourage more people to participate in the labs on their own hardware.
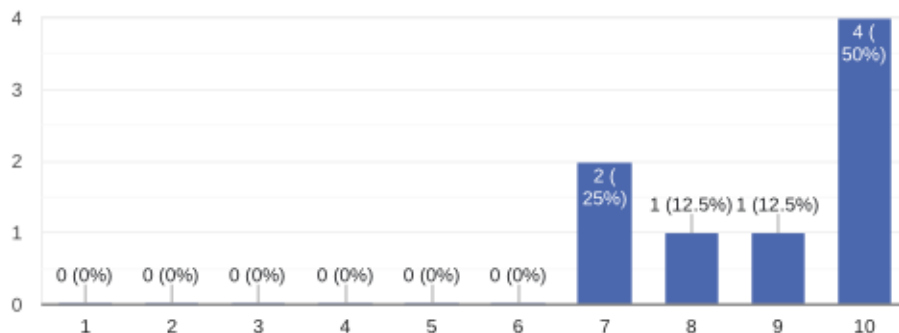
To improve the course, I would love if you all fleshed out the demos even more and had some toy problems we could work on to apply some of the debugging and tracing tools. Happy to contribute to an effort like this!

How would you rate the overall organization of the course?

8 responses

Comments and suggestions

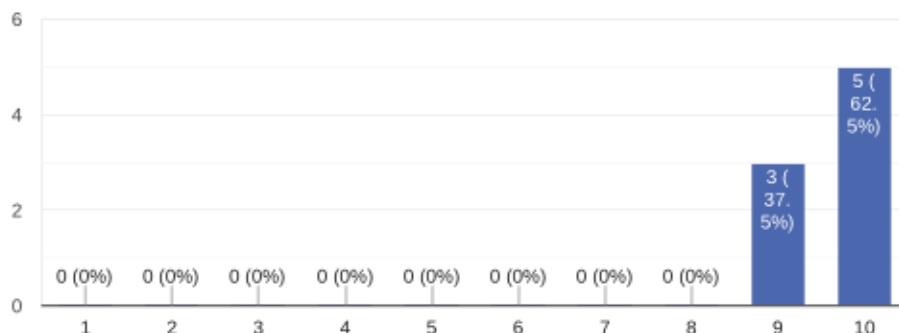2 responses

The organization was ok.

I would have liked a little more communication leading up the course. There was one great informational email, but I accidentally missed it in my inbox and so it would have been nice to have one follow up a day or two before the training to get ready. If the session page (https://bootlin.com/doc/training/sess███████████████) is fairly static, maybe that could also be sent out a bit earlier (say on course signup).

As an example, I wasted some time scrambling to find a micro SD card reader since I didn't realize I had to load the firmware from my host PC and couldn't just flash it through the serial connection on the board (maybe this method is possible, but it wasn't presented afaik). I ended up having to scp the firmware from my desktop to my mac (only had a USB-C SD reader) which was workable, but a bit of a distraction.

How would you rate the trainer?

8 responses

Comments and suggestions

3 responses

The level of trainer's expertise is noticeable, it is nice to be able to nourish from part of his knowledge

Very good trainer. He has a great knowledge about the topics of the training

Maxime was a wonderful trainer and struck a great balance between moving through the material and helping us out with our individual questions and issues. His teaching style was very clear and I was impressed by his depth of knowledge and ability to extend the knowledge in the slides.

How did the course meet your learning objectives?   □ Copy
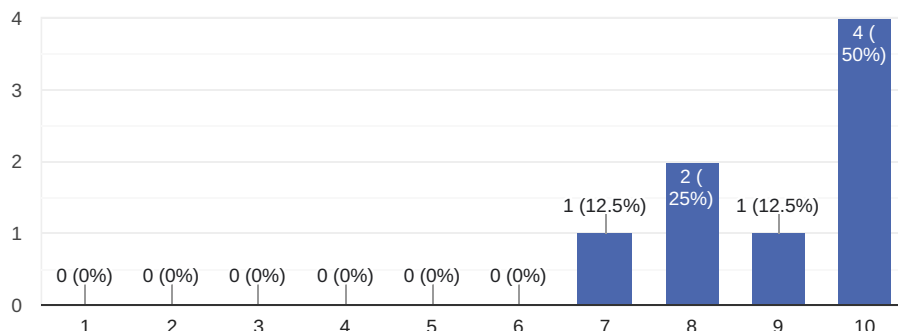
8 responses

Comments and suggestions

2 responses

It gave an overall knowledge about how the PREEMPT_RT patch works.

It did! I still feel like I have some more to practice here and that could have been helped by slightly more comprehensive labs (maybe some more problem-solving oriented aspects rather than just exploratory), but I feel like I've come away from the course with a fuller understanding of the PREEMPT_RT patch set and some actionable steps I can take to get more involved and improve some of my own applications.

What part(s) of the course did you like most?

4 responses

Thee topic in general, how to make the kernel deterministic (configuring it, using tools to test the effect of the changes) and the small curiosities mentioned by the instructor

I liked the explanation of how to modify the linux system in runtime and the final application that demonstrates the page faults importance.

Being able to have a development kit on my desk and follow along was really nice. Maxime was also very willing to stop and help debug issues with local hardware. I also enjoyed seeing demos of tracing and would love more of this content. For example, maybe for future trainings you could design a simple debugging scenario where ftrace is used in a realistic scenario to find a timing bug in some realtime application (similar to how we quickly patched the bug in the stm32_usart driver in the kernel code).

lab demonstration

What part(s) of the course did you like least?

3 responses

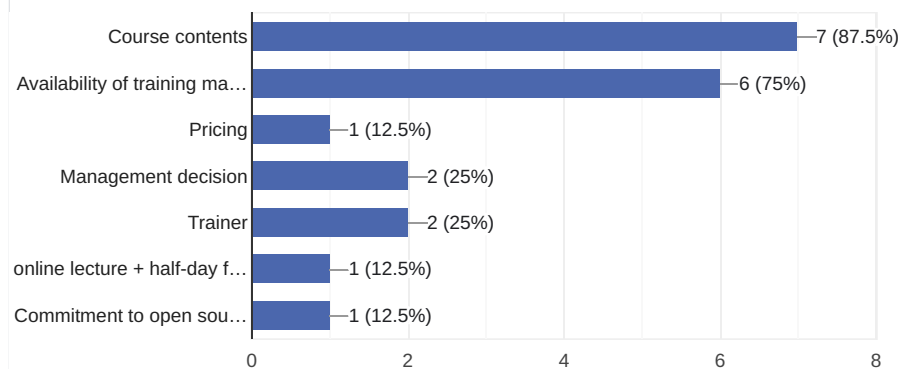At times it has become very theoretical for me

I liked least the part of analysing the kernel traces, a bit confusing due to the amount of data dumped in the files

The video call software did not work super well. During the second day I actually joined early, but all the screens were blank and there was no audio, so I waited for 10-15 minutes assuming that the training had not yet started. After a while I got suspicious and refreshed the page and was a bit dismayed to see that the training had been going the whole time. The video software was also in and out sometimes (maybe due to network issues), so people mostly had their videos off to save bandwidth. I think it might help engagement if the video call system worked better. Totally understand this as a challenge of hosting a remote session, but maybe send an email/matrix message out when the training is starting or try a different video call software?

What reasons prompted you to choose a Bootlin course?

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8 responses

Reason	Count
Course contents	7 (87.5%)
Availability of training ma…	6 (75%)
Pricing	1 (12.5%)
Management decision	2 (25%)
Trainer	2 (25%)
online lecture + half-day f…	1 (12.5%)
Commitment to open sou…	1 (12.5%)

Comments

2 responses

Thank you for the knowledge received, I will continue to deepen my knowledge on the subject. We will be in touch via LinkedIn

Honestly, I was very excited when I came across Bootlin's page. I can't remember exactly how I found about you all, but it was during the last training in February and I remember being a bit bummed that I would not be able to participate then.

I admire your all's dedication to sharing the knowledge you all have collected and making it accessible for all of us. The rest of your trainings are not quite as relevant to my work as this one, but I will definitely keep following along with what you all are doing!

Also, I'd be happy to contribute or collaborate where it makes sense. I work primarily in making realtime systems easy to spin up for researchers and use these frameworks personally in other fields too. I've spent some time building test infrastructure with netboot/saltstack that works in a hybrid (local/cloud) environment to verify our realtime systems and would love to share if interesting.

Further training needs?

3 responses

In the future I would like to do the one you have available about startup time optimization and maybe in one of advanced Yocto that you could bring out in the future, because the one available now is basic

I would probably take a training on how to get started with making contributions to the Linux kernel. Maybe your all's "Embedded Linux kernel and driver development training" is relevant there. I've found the whole process a bit gatekept (mailing lists, very established developers, code is a bit daunting/poorly documented, etc.)

I also think "Linux debugging, profiling, tracing and performance analysis training" looks interesting, but I am personally a bit more interested in analyzing things externally (say with a signal generator and oscilloscope) and would want to dive into the signal processing side of this. Probably just my EE background talking though.

I'd also consider taking anything that deals with ESP32s as peripherals for I/O since that's an area of work that I'm pushing on.

wayland, X, gtk, zephyr

Google Forms